

ABSTRACT OF THE DISCLOSURE

A system and method for communicating over networks, particularly generally-linear networks such as a network of railcars in a railway train. The disclosed system and method include the relaying of packets which may contain plural messages down a line of nodes. Acknowledgement of the packets is obtained implicitly by listening to a subsequent relay of the packet and retransmission of the packet is effected on a diverse antenna in the event of non-acknowledgement. Message bandwidth is shared among the nodes of the system by a message priority system and by the reservation of portions of a packet for certain types of messages. Message bandwidth is also shared by the use of groups of nodes as relay participants and by periodically changing the group which is performing the relay operations.

Related Applications

This application claims the benefit of U.S. Provisional Application No. 60/040,585, filed March 17, 1997, U.S. Provisional Application No. 60/040,586, filed March 17, 1997, U.S. Provisional Application No. 60/044,333, filed March 27, 1997, U.S. Provisional Application No. 60/043,753, filed April 9, 1997, U.S. Provisional Application No. 60/064,529 filed November 5, 1997, and U.S. Provisional Application No. 60/066,304, filed November 25, 1997